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(71) Applicant (for all designated States except US): **RE-  
GENT TECHNOLOGIES LTD.** [CA/CA]; 3735-8th  
Street, Nisku, Alberta T9E 8J8 (CA).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **CLAERHOUT, Mike**  
[CA/CA]; 3735-8th Street, Nisku, Alberta T9E 8J8 (CA).

(74) Agent: **TOMKINS, Donald, V.**; Miller Thomson LLP,  
2700, 10155-102 Street, Edmonton, Alberta T5J 4G8 (CA).

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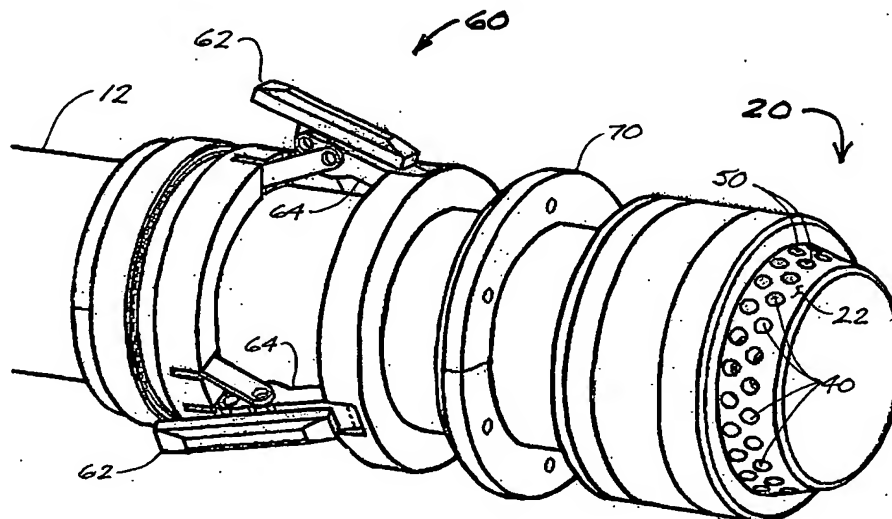
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**Declarations under Rule 4.17:**

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[Continued on next page]

(54) Title: APPARATUS AND METHOD FOR THERMAL DE-BURRING OF SLOTTED WELL LINERS



(57) Abstract: A method and apparatus for removing burrs from inside slotted metal liners exposes the burrs to a high-intensity gas flame that effectively oxidizes or incinerates the burrs, without inducing undesirable temperature levels in the parent metal of the slotted liner. This is accomplished using a torch head assembly having multiple gas torch nozzles disposed radially around the circumferential perimeter of the torch head, such that when the torch head is passed through the interior of a slotted liner, the flames are directed toward the interior surface of the liner. Auxiliary oxygen is introduced at the nozzle outlets, resulting in a large increase in flame velocity and intensity and, in turn, an increase in the flame temperature. The auxiliary oxygen may be introduced through annular passages surrounding the nozzles, such that the auxiliary oxygen effectively forms a cylindrical curtain surrounding the flame at each nozzle.

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